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# SYSTEM AND METHOD PROVIDING USER DEFINABLE ON-LINE WAGE AND SALARY REPORTS

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# TECHNICAL FIELD

The present invention relates to the provision of salary surveys, and more particularly, to providing a company or individual the ability to obtain survey group data for a self-designated group via the Internet.

## **BACKGROUND OF THE INVENTION**

The use of external labor market surveys as a resource to design and administer salaries from medium and large companies is well established. Companies with formal pay plans, and even companies with no formal pay plans, use labor market data to evaluate their

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pay structures and policies to make sure they maintain a competitive position in the market. In recent years, there has been an increasing reliance on market data as competition, both nationally and internationally, has increased in intensity. The trend in pay policy development has been to establish base pay and market levels and to increase pay potential through the use of variable pay options, such as merit increases, bonuses, team incentives, and other alternatives. Such approaches to pay rely heavily on timely, accurate labor market information.

In order for companies to obtain and maintain accurate market information in a timely fashion, they must have continuing and updatable access to salary information in order to provide important information necessary to make salary and personnel decisions. Presently, a number of surveys on various market industries and market sectors are available to employers. However, this information, which is not specifically directed to a particular company's needs, may not provide information relevant to a specific company within its own competitive market area. Furthermore, without specific information on how the survey data was obtained, the survey may not prove beneficial to a particular company since they are unsure as to whether the data relates to information in their specific hiring market or company demographic.

In addition to providing survey information of this type in a hard copy format, many industries and industry associations are providing survey data in an on-line fashion. Users may pull up on-line information on a particular industry or sector from a pre-existing survey

or they may call up existing survey information relating to certain predetermined geographic areas defined by a surveyor.

However, in each of these situations, the information gatherer is still limited to the information that is actually obtained by the surveyor which may or may not be relevant to the market sector with which a particular company is concerned. Therefore, there is a need for an interactive salary and wage survey website providing the ability for companies to obtain wage and salary information specific to their particular industry needs.

#### **SUMMARY OF THE INVENTION**

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The present invention comprises a system wherein a service provider provides a website enabling contributing members to store salary data relating to benchmarked job positions and to extract processed salary reports from the database whenever desired. A company that opts to contribute wage information to the database, i.e., a contributing member subscribes to the system by paying an entry fee to the service provider or the sponsoring organization and providing salary data of the company to the service provider for storage in a database associated with the website. A number of contributing members may be associated together as a survey group by the service provider of the website or by a sponsoring organization. The rules governing the collection of salary information and admittance into the group will be determined by the survey group and the website provider. The salary data from the contributing members of a survey group is processed in a predetermined fashion into surveys and access to the surveys is provided to the survey group

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via the Internet. Other companies who do not contribute salary information, i.e., subscribing members, may access the salary information in the database for an entry fee paid to the service provider or the sponsoring organization.

#### BRIEF DESCRIPTION OF THE DRAWINGS

A more complete understanding of the method and apparatus of the present invention may be obtained by reference to the following Detailed Description when taken in conjunction with the accompanying Drawings wherein:

FIGURE 1 shows a block diagram of a system configuration in one embodiment of a on-line salary survey system in accordance with the present invention;

- FIGURE 2 illustrates WageLink Table relationships;
- FIGURE 3 illustrates database table ACCOUNT INFORMATION;
- FIGURE 4 illustrates database table AREA CODE INFORMATION;
- FIGURE 5 illustrates database table APPLICATION CONTROL INFORMATION;
- 15 FIGURE 6 illustrates database table GROUP ACCOUNT ASSOCIATION;
  - FIGURE 7 illustrates database table GROUP INFORMATION;
  - FIGURE 8 illustrates database table INDUSTRY CODE INFORMATION;
  - FIGURE 9 illustrates database table JOB CODE INFORMATION;
  - FIGURE 10 illustrates database table LINKS MESSAGES INFORMATION;
- FIGURE 11 illustrates database table NEWS MESSAGES CODES;
  - FIGURE 12 illustrates database table REPORTS RUN INFORMATION;

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FIGURE 13 illustrates database table SPONSOR INFORMATION;

FIGURE 14 illustrates database table WAGE INFORMATION;

FIGURE 15 illustrates database table ARCHIVED WAGE INFORMATION;

FIGURE 16 illustrates database table UNCONFIRMED WAGE INFORMATION;

FIGURE 17 illustrates the operation of a salary service provider with a plurality of companies according to the system and method of the present invention;

FIGURE 18 illustrates the various membership levels provided by a service provider;

FIGURE 19 illustrates a wage and salary report generated by the system of the present invention;

FIGURE 20 illustrates formation of a subgroup by a number of companies; and

FIGURE 21 is a flow diagram illustrating the process for forming a survey subgroup according to the present invention.

## **DETAILED DESCRIPTION**

Referring now to the drawings, and more particularly FIGURE 1, which shows a block diagram of a system configuration of an on-line salary system in accordance with the present invention. In FIGURE 1, a number 35 denotes a client which a company uses for obtaining on-line salary information. Numeral 10 denotes a display device used to display salary data. Numeral 15 denotes a keyboard and a numeral 20 denotes a mouse. They are used by a company user for accessing the system. Numeral 25 denotes a speaker which outputs audio information when information by audio is included within the salary

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information. Numeral 30 denotes a control unit which realizes various functions of the salary client 35 in accordance with a program stored in a main memory 40. The salary client 35 exchanges data with a salary server, to be described later, through a network 50 such as a PSTN (public switch telephone network) or the Internet via communication unit 45. The salary client 35 may comprise a dedicated terminal device as well as a general purpose information terminal device such as a so-called personal computer (PC) may be used.

Numeral 85 denotes a salary server of the on-line salary system. The salary server 85 comprises a display device 60, a keyboard 65, a main memory 70, a communication unit 75 and a control unit 30. The control unit 80 transmits salary data 86 in response to a request from the salary client 35. The salary data 86 and salary database 90 are stored in a memory unit such as a disc device, hard drive or random access memory which is accessed by the control unit 80. The display device 60 and the keyboard 65 are used for the maintenance of the program and data in the salary server 85. The salary client 35 is connected to the network 50 through the communications unit 75.

In the present invention, there may be one or more salary servers 85 and one or more salary clients 35 connected to the network 50. Each salary client 35 may access any salary server 85. The salary data 86 is maintained for each salary server 85. The salary server 85 includes a professionally managed, interactive salary database 90 of wage and salary levels for selected benchmarked jobs. A benchmarked job is a job type or job category that would exist in most companies (e.g., payroll). Benchmarked job information is useful to a company that wants to match its wage levels with those in the marketplace. The control unit 80 groups

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salary data in accordance with instructions received from a client 35, as will be discussed more fully below, and compares wage rates and salaries to other companies within a geographic area, industry or company size.

The database 90 consists of tables and fields necessary to maintain the required salary data 86 provided by the various members. All programs accessing the database 90, which are stored in the memory 70, are database independent. Referring now to FIGURES 2-16, there are illustrated the various tables 150 stored with the database 90 that will store wage and salary data 86 and enable the query and display of data by a member. The database 90 comprises all table and relationship data. Database queries are made using standard SQL from the ASP VBScript code which will enable the database to be easily migrated to other database structures if desired.

FIGURE 2 illustrates the various relationships between tables stored within the database 90. FIGURE 3 illustrates the table ACCOUNT INFORMATION. The ACCOUNT INFORMATION table maintains all registered users of the application. The account type code determines the type of account and in turn the access allowed by the user within the application.

FIGURE 4 illustrates the table AREA CODE INFORMATION. The AREA CODE INFORMATION table maintains the area code description data for the various area codes as defined by the telephone company.

FIGURE 5 illustrates the table CONTROL INFORMATION. The CONTROL INFORMATION table allows the application administrator to set various application

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parameters to allow certain aspects of the application to perform in different ways. The following items can be controlled by the settings in the CONTROL INFORMATION table. The default gross percent parameter specifies the default value used in calculating aged wages for reports. The minimum data needed parameter specifies the minimum number of wage data points necessary to generate a report. The news days parameter specifies the number of days news should be considered new and should display the new graphic. The wage expire days parameter discloses the maximum number of days allowed for wage data before it is considered to expire.

FIGURE 6 illustrates the GROUP ACCOUNT ASSOCIATION table. The GROUP ACCOUNT ASSOCIATION table associates a specific account with a specific subgroup. Once associated, all wage information provided by the account is available to all members of the specified subgroup as will be more fully described below.

FIGURE 7 illustrates the database table GROUP INFORMATION. The GROUP INFORMATION table maintains the group codes created along with demographic information and the sponsoring information for self-designated subgroups within the system contributors. The establishment of a subgroup will be more fully described below.

FIGURE 8 illustrates the INDUSTRY CODE INFORMATION table. The INDUSTRY CODE INFORMATION table maintains a list of all possible industry codes along with a description associated with the code.

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FIGURE 9 illustrates the database table JOB CODE INFORMATION. The JOB CODE INFORMATION table maintains all possible job codes along with any information associated with the job code.

FIGURE 10 illustrates the table LINKS MESSAGES. The LINKS MESSAGES table maintains all the links to other associated web sites along with a short description for display within the news page.

FIGURE 11 illustrates the database table NEWS MESSAGES. The NEWS MESSAGES table maintains all news messages for display upon a news page provided by the salary survey service provider.

FIGURE 12 illustrates the database table REPORTS RUN. The REPORTS RUN table maintains a list of every attempted report along with a number of data points found for the specified parameters. This report can be used to track application usage by each account for billing purposes, statistical analysis at peak times or problem resolution.

FIGURE 13 illustrates the database table SPONSOR INFORMATION. The SPONSOR INFORMATION table allows for the maintenance of sponsor codes and all associated demographic information for sponsors of various subgroups.

FIGURE 14 illustrates the table WAGE INFORMATION. The WAGE INFORMATION table maintains all the contributor wage data. Contributor and subscriber memberships will be more fully described below. Each account ID, job code and area code combination makes up a unique record and adds associated wage information on the record.

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This table is used to generate wage/salary reports for users of the system as will be more fully described below.

FIGURE 15 illustrates the database table WAGE INFORMATION ARCHIVED.

The WAGE INFORMATION ARCHIVED table maintains all the historical wage information records that have been replaced with newer information. This table is maintained for future use or special reporting use.

FIGURE 16 illustrates the WAGE INFORMATION UNCONFIRMED database table. The WAGE INFORMATION UNCONFIRMED table maintains all wage/salary information received from contributors that has not been verified. Once verified, the associated data from the WAGE INFORMATION UNCONFIRMED table is moved in to the WAGE INFORMATION table where it is made available for reporting, and the record in the WAGE INFORMATION table is moved to the WAGE INFORMATION ARCHIVED table.

The server 85 will also include a number of business layer ASP VBScripts for controlling the controller 80 used to maintain the database 90 as well as to form the data necessary for reports, queries, etc.

Referring now to FIGURE 17, there is illustrated the manner in which a salary service provider 160 interacts with a plurality of companies 165. Each company 165 is able to subscribe to the services provided by the salary service provider 160. A company 165 subscribes by accessing a server 85 of the salary service provider 160 via the internet 170, signing up and paying any necessary fee. The company 165 provides wage and salary information of the company that is stored within a database 90 at a storage location 172

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associated with the company 165. In addition to providing its wage and salary information for storage in the database 90, a company 165 may associate itself with a subgroup 175 (survey group) of all subscribers of the salary service provider 160. Thus, for example, company 1, company 2 and company 3 could form a subgroup 175 of, for example, textile manufacturers within the southern states.

A group survey reports functionality 180 within the server 85 enables this subgroup 175 of companies to generate specialized survey reports specifically relating to the subgroup 175 formed by the companies. In this fashion, these companies would be able to obtain salary and wage survey specific information most important to enabling these companies to make wage and salary decisions. The group survey reports functionality 180 may, in one alternative, provide the information solely to the companies 165 comprising the subgroup 175 providing information for the specialized salary survey. Alternatively, this information may be accessible to third parties which are not a member of the associated company subgroup 175.

The server 85 also provides a server survey data functionality 185 enabling any company who is a subscriber to the salary service provider 160 to access any data stored within the database 90. The survey data functionality 185 enables a company to select particular parameters by which a survey will be generated. These parameters may include but are not limited to industry, geographic region, and company size. The survey data functionality 180 also enables the data to be displayed to a user in a number of fashions including but not limited to salary weighted averages, salary median values, salary 25th

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percentile values, salary 75th percentile values, average total cash compensation, compensation 25th percentile, total cash compensation median, total cash compensation 75th percentile, average minimum salary range value, average midpoint salary range value, average maximum salary value and standard deviation of base salary values.

Referring now also to FIGURE 18, after a company 165 subscribes to a membership 100 by the salary survey service provider 160, a member has a choice of at least two different kinds of memberships 100. A contributor 105 agrees to provide wage information on their company for a number of benchmarked jobs that are contained within the service providers database 90. A contributor 105 further agrees to periodically update their salary information relating to the benchmarked jobs. For providing this information and helping to grow the service provider's salary database 90, a contributor 105 is allowed an unlimited number of online salary service reports and a lower annual subscription fee. A contributor 105 agrees to provide average base wage or salary information; the number of full time employees in a job; the average total compensation (base pay plus other compensation) for each matched job; exempt status under FLSA; pay range minimums, midpoints and maximums. This, of course, is to ensure that all necessary information is obtained in order to assist the salary service provider 160 to generate the reports for contributing and subscribing members.

A second type of membership 100 comprises a subscriber 110 who has no obligation to contribute wage and salary information to the service provider's database. A subscriber 110 may generate salary reports by paying an annual subscription fee or alternatively pay for

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reports on a per report basis. The annual subscription fee is much greater for a subscriber 110 due to the fact that they are not assisting in building the service provider's database 90.

A contributor 105 is able to generate wage and salary reports for a plurality of benchmarked jobs contained in the database 90. These wage and salary reports include information such as average wage or salary; base wage or salary; 25th, 50th and 75th percentiles for base wage or salary; average total compensation; 25th, 50th and 75th percentile for total compensation; the number of full time employees in the job; the number of exempt and non-exempt employees represented in the report; the average scheduled hours for the work week; and the standard deviation for base wages and salaries. A report generated by a subscriber 110 would include similar information. One example of such a report is indicated in FIGURE 19 for a payroll clerk. As can be seen, the report provides the job title 115, job summary 120, job requirements for the payroll clerk 125, a profile 130 of the companies that have provided information for generating the report page and a listing 135 of the processed wage and salary information described above.

A contributor 105 has the further option of being a member of one or more survey subgroups 175. A survey subgroup 175 consists of a number of companies which agree to contribute information to the database 90 and use the information for the particular subgroup 175 to generate salary and wage survey reports relating to their particular subgroup 175. The companies may or may not be members of an existing industry or professional association.

Thus, for example, as shown in FIGURE 20 a survey subgroup 175 of widget producers may be formed of companies A, B, C, D, and E and have an associated data group

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145 formed in the database 90 for this subgroup 140 of widget producers. The data group 145 consists of the data stored within the various tables discussed in FIGURES 2-16 associated with members of the subgroup. The companies select which jobs they wish to include in their surveys. The selected jobs may be made from the job summaries already contained within the service providers' database 90 or the subgroup 175 could further develop additional job summaries more suited to the information desired by the group. The service provider 160 will set up the subgroup 175 by assigning a group number, passwords to all group members and job codes for each of the selected job summaries. Once job summaries and passwords are created, the group members can begin loading wage and salary information into the database 90. After the information has been quality checked by the service providers 160, survey subgroup members may extract wage and salary reports from the database 90.

The information contained within the data group 145 of the subgroup 175 may be configured to be accessed merely by members of the survey subgroup 175 or, alternatively, can be made available to other contributors and subscribers. The availability of this data would, of course, determine the subscription price for members of the subgroup 175. If the data were limited solely to members of the subgroup 175, a higher cost per group member would be required. Information made generally available to other members of the salary survey service provider 160 would enable reduced fees since additional benefits are obtained by the survey provider from the contributed information.

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Referring now to FIGURE 21, there is a flow diagram illustrating the process by which a subgroup 175 (FIGURE 17) survey may be formed using the group survey report functionality 180 of the server 85. A salary survey service provider 160 is established at step 190 that is accessible via the Internet 170 or some other type of network. The service is established by connecting a server 85 to the Internet 170 or other network. The salary service provider 160 accepts at step 195 memberships from a number of companies 165. After becoming members, the members (contributors) store at step 200 salary data associated with the member company within the salary service provider database 90. The group survey report functionality 180 receives at step 205 input from a number of member companies indicating a subscription subgrouping consisting of a number of companies that wish to be associated with each other for the purpose of performing various surveys and obtaining reports. These companies are grouped together at step 210 in order to establish a subgroup 175 for each of the associated members. The members of the subgroup provide survey request parameters which are received at step 215 at the server 90 associated with the salary service provider and used to generate reports at step 220 according to the provided parameters. In this fashion, a survey specific to the members of the subgroup 175 is generated at the server. The survey results are stored at step 225 in the database 230 and may be accessed at step 130 via the Internet 170 or other type of network by members of the subgroup 175, or alternatively, by other non-member companies.

The previous description is of a preferred embodiment for implementing the invention, and the scope of the invention should not necessarily be limited by this description. The scope of the present invention is instead defined by the following claims.